AFRICA
an opportunity and a challenge

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Africa Opportunities

CONTENT

- The continent AFRICA
- Issues & Challenges
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**AFRICA**

**A CONTINENT WITH OPPORTUNITIES**

- Biggest continent after Asia
- 30.3 millions km²; approx 20% of the Earth
- Population: 1,216 billions (2016)
  - Borders to
    - the Atlantic Ocean to the east
    - the Indian Ocean to the west
    - the Mediterranean Sea to the north
    - the Red Sea and Suez Canal separate Africa with Asia
- 53 Countries
  - > 50% facing ocean with potential hydrocarbon reservoirs
- Huge unexplored acreage
Issues & Challenges in general terms

**Key Issues**
- Huge continent and every country is different
- Identify opportunities – timing – FDP/FID
- Country specific governance
- Local Partners – is it required?
- Local content expectations
- Slow process and time consuming

**Challenges**
- Resource demanding
- Local Governance & requirement
- Compliance
- Geo-political / Culture
- Security / HSE
- Local content
- What does it take to win a contract??
Main compliance risks in the front line

- **Global pursuit of prospects;**
  - Country risks

- **Travel;**
  - High risk locations, culture

- **Business partners;**
  - Interaction / hospitality, “Guilt by association”

- **Government interaction;**
  - Licenses, visas, statutory requirements, local content
Opportunities in Africa

- Oil production – Angola, Nigeria & Norway almost same level of oil production ~ 1,65 mbpd:
Greenfield EP expenditures by country 2017-2025

**Aker Solutions Project References**

### Total (Angola) – Kaombo

**Delivery 2016-2019**

- Largest ever Subsea Production System (SPS) project award (1400 – 2000m depth)

  - **Scope of work:**
    - 65 VXMTs (36 PXT & 29 WIXT)
    - 65 Wellhead system w/tooling
    - 20 Manifolds 2-slot & 4-slot
    - 20 Suction anchors and levelling frames
    - 35 Production MB Rigid Jumpers
    - 20 SDU’s
    - 2 WOS, 2 SSIV’s
    - HCS tie in system (SPS+SURF scope)
    - VCM tie in on SSIV modules
    - SPS Control System

### Total (Congo) – Moho

**Delivery 2015-2017**

- Subsea Production System (SPS) project (800m depth)

  - **Scope of work:**
    - 18 off production VXT with gas lift (and FCM incl MPFM)
    - 10 off WI VXT
    - Wellheads
    - 2 off complete open water IWOCS incl EDP/LRP.
    - 6 off manifolds & structures
    - 2 SSIV/PLEM structure
    - 1 Gas lift module
    - 1 Subsea Distribution Units + 6 Subsea Umbilical Terminations
    - 28 permanent Guide bases
    - Subsea Control System
Aker Solutions - Congo

- Contract: Signed in 2014 with Total
- In country work during project execution
- Established Aker Solutions in Congo, which today
  - 24 National Employees
  - 24 Expat Positions
- The Scope in Congo
  - Integrated Service Lifecycle Management
  - Project support
  - Operational support
    - Onshore
    - Offshore incl. commissioning and intervention
    - Tooling
Introduction to Aker Solutions in Angola

- Aker Solutions Angola Ltd (ASAL) present through subsea service base at Sonils in Luanda since 2003
- Several subsea projects – Dalia, Girrasol, Gimboa, Kaombo
- Historically work performed in Angola dominated by subsea services – preparation of equipment for use offshore, refurbishment, maintenance, storage
Introduction to Aker Solutions in Angola

- Aker Solutions Enterprises Lda (AKSEL) – a Joint Venture Company
  - Set up as a part of legal requirement for local content in Angola
  - Initially linked to the Kaombo project – contract signed April 2014 - world’s largest subsea contract ever awarded – 2.3 bUSD
  - Local content portion approx. 450 mUSD
  - AKSEL is under the full “management and control” of Aker Solutions as per JV agreement

**AKSEL is a vehicle for future business** (projects, services) in Angola, through which all local content contracts will be channeled
Challenges of doing business in Angola

- **High cost:**
  - Cost of doing work in Angola comes at additional cost compared to international delivery model
  - Cost of expatriation into Angola is expensive

- **High risk:**
  - Reputation risk – challenging and complex business environment. Angola ranked 164 out of 180 on Transparency International ranking
  - Change of law risk – frequent and unpredictable changes of law (taxation, bureaucracy etc.)
  - Business risk – immature business infrastructure and environment

- **Relatively low level of skills, education, welfare and health institutions**
  - Angola ranks 150 in UNDP Human Development Index

- **“Rewards”**
Africa – An opportunity

Concluding remarks

- Market is there
- Need to put Compliance, Security, HSE top of the agenda
- Need long term view
- Be selective
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